


Southern Nuclear Operating Company		
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Southern Nuclear Company


Operations Training
JPM

FINAL

ADMIN 1 – ALL WITH SRO PORTION

Title: CORRECT RWL INDICATORS FOR HIGH DRYWELL TEMPERATURES & SRO ONLY TS		
Author: Anthony Ball	Media Number: 2015-301 ADMIN 1	Time: 30.0 Minutes (45 Minutes)
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



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Line Contributors

The following individuals contributed to the development of this lesson plan.

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UNIT 1 (X) UNIT 2 ()

TASK TITLE:	CORRECT RWL INDICATORS FOR HIGH DRYWELL TEMPERATURES & SRO ONLY TS
JPM NUMBER:	2015-301 ADMIN 1
TASK STANDARD:	The RO portion of this task shall be successfully completed when all of the JPM Critical Steps corresponding to 34AB-B21-002-1 have been correctly performed to identify which RWL instruments are valid and invalid and the corrected RWL. For a SRO to successfully complete the RO and SRO portion of this task the RO standard must be met and the SRO has determined TS Required Action 3.3.5.2.B.2 is required to be performed within 24 hours by placing a channel in trip and that TS Required Action 3.3.5.2.B.1 is required to be performed.
TASK NUMBER:	201.099
OBJECTIVE NUMBER:	201.099.B

PLANT HATCH JTA IMPORTANCE RATING:

RO 4.57

SRO 3.83

STA 4.00

K/A CATALOG NUMBER: G2.1.35

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.90

SRO 4.20

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1	Unit 2
	34AB-B21-002-1 (current version)	34AB-B21-002-2 (current version)
REQUIRED MATERIALS:	Unit 1	Unit 2
	34AB-B21-002-1 (current version)	34AB-B21-002-2 (current version)

APPROXIMATE COMPLETION TIME: **30.0** Minutes (45 Minutes)

SIMULATOR SETUP: N/A

DO NOT give this to applicant

UNIT 1
READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Plant conditions are indicated on Attachments 1 & 2.
2. The NPO has reported the following Reactor Water Levels (RWL):

1C32-R606A, B and C (Narrow Range) is +8 inches

1B21-R605, (Flood Up Range) is +28 inches

1C32-R655, (Flood Up Range) is +28 inches

1B21-R604A (Wide Range) failed Upscale

1B21-R623A (Wide Range) are +30 inches

1B21-R604B and 1B21-R623B (Wide Range) are +35 inches

1B21-R623A and 1B21-R623B (Fuel Zone) are indicating ****

3. NO erratic behavior for the specified instruments has been observed.

INITIATING CUES:

Determine which of these RWL indications are valid and which RWL indications are invalid

And

Report the corrected RWL for EACH valid RWL instrument.

*****CAUTION: DO NOT GIVE SECOND INITIATING CUE SHEET TO SRO CANDIDATES
UNTIL FIRST PART IS COMPLETE*****

UNIT 1

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Plant conditions are indicated on Attachments 1 & 2.
2. The NPO has reported the following Reactor Water Levels (RWL):

1C32-R606A, B and C (Narrow Range) is +8 inches

1B21-R605, (Flood Up Range) is +28 inches

1C32-R655, (Flood Up Range) is +28 inches

1B21-R604A (Wide Range) failed Upscale

1B21-R623A (Wide Range) are +30 inches

1B21-R604B and 1B21-R623B (Wide Range) are +35 inches

1B21-R623A and 1B21-R623B (Fuel Zone) are indicating ****

3. NO erratic behavior for the specified instruments has been observed.

INITIATING CUES:

Determine which of these RWL indications are valid and which RWL indications are invalid

And

Report the corrected RWL for EACH valid RWL instrument.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

- (1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

START TIME: _____

1.	Operator identifies the procedure needed to perform the task.	Operator has identified the correct procedure as 34AB-B21-002-1.	
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NOTE: If the operator indicates that SPDS would be checked, give the operator Attachment 1.

PROMPT: **IF** the operator addresses Drywell temperature indications, **INDICATE** for the operator that temperature is greater than 150°F (Use Attachment 1 if SPDS is addressed).

2.	Determine if RWL corrections are required.	Using SPDS (or Drywell temp indications) the operator DETERMINES: Drywell temperature is greater than 150°F. RWL corrections ARE required.	
3.	Review Caution 1 and Caution 2 on Attachment 1 of 34AB-B21-002-1.	The operator has REVIEWED Caution 1 and Caution 2 on Attachment 1 of 34AB-B21-002-1.	

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
4.	Confirm there is no indication of erratic instrument behavior.	<p>The operator has VERIFIED, by observation or by addressing the panel operator, that the following RWL instruments show NO erratic instrument behavior:</p> <p>1B21-R604B</p> <p>1B21-R605, (Flood Up Range)</p> <p>1C32-R655, (Flood Up Range)</p> <p>1B21-R623A (Wide Range)</p> <p>1B21-R623B (Wide Range)</p> <p>1B21-R623A (Fuel Zone)</p>	

PROMPT: **WHEN** the operator indicates use of the Diagnostic screen of SPDS, **GIVE** the operator Attachment 2.

5.	Determine highest temperature for RTD Group 1 and 2 (Maximum Run Temperature).	<p>At SPDS panel, the operator has DETERMINED the following Maximum Run Temperatures:</p> <p>RTD Group 1 - 293°F</p> <p>RTD Group 2 - 290°F</p>	
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PROMPT: **IF** the operator addresses temperature indications on Panels P654 and P657; indications can be **SIMULATED** using the values from Attachment 2.

6.	Determine highest temperature for RTD Group 5 (Maximum Run Temperature).	<p>At SPDS panel, the operator has DETERMINED the following Maximum Run Temperatures:</p> <p>RTD Group 5 - 263°F</p>	
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PROMPT: **IF** the operator addresses temperature indications on Panels P654 and P657; indications can be **SIMULATED** using the values from Attachment 2.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**6.	Determine if the RWL instrument may be used by comparing the Minimum Indicated Level for the associated Maximum Run Temperature.	The operator has DETERMINED the following RWL instruments are VALID : 1C32-R606A (Narrow Range) 1C32-R606B (Narrow Range) 1C32-R606C (Narrow Range)	

NOTE: With RWL instruments, 1B21-R623A and 1B21-R623B (Fuel Zone), indicating **** (asterisks), these instruments are indicating UPSCALE (>-17 inches) for the current RWL. This is normal for the current RWL and the instruments are still valid.

**7.	Determine if the RWL instrument may be used by comparing the Minimum Indicated Level for the associated Maximum Run Temperature.	The operator has DETERMINED the following RWL instruments are INVALID : 1B21-R604B 1B21-R605, (Flood Up Range) 1C32-R655, (Flood Up Range) 1B21-R623A (Wide Range) 1B21-R623B (Wide Range)	
**8.	Determine correct RWL from the following; 1C32-R606A 1C32-R606B 1C32-R606C.	Using 34AB-B21-002-1, the operator has DETERMINED Correct RWL for 1C32-R606A, B & C (narrow range) is +8 inches (accept ± 1 inch).	

END TIME: _____

NOTE: The terminating cue shall be given to the Operator when:

- After JPM step #8 is complete.
- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE FOR THE REACTOR OPERATORS: We will stop here.

EVALUATOR – **PICK UP** the Initiating Cue sheet **AND** Attachments 1 & 2 for the Reactor Operators.

PROMPT: Hand the Initiation Cue on the following page to the SROs for second half of JPM and then read the Initiation Cue to the SRO.

UNIT 1

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. 1B21-N091A instrument detector has failed causing 1B21-R604A, Wide Range Instrument, to indicate High Upscale.
2. 1B21-N691B, Master Trip Unit (**MTU**), has failed and will NOT provide a trip signal.

INITIATING CUES:

Determine Technical Specification required actions with regards to RCIC ONLY.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

- (2) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

START TIME: _____

9.	Operator identifies the procedure needed to perform the task.	Operator has identified the correct procedure as Unit 1 TRM/TS.	
10.	Determines the correct LFD by using section Table T10.1-1 Master Equipment Cross Reference-Sorted by MPL of the TRM.	Determines the correct LFD to be LFD-1-RCIC-01 by referencing 1B21-N691 A, B, C, D. (1B21-N091A and 1B21-N691B both reference LFD-1-RCIC-01)	
11.	Determines correct Technical Specifications section to be entered by using section Table T10.1-1 Master Equipment Cross Reference-Sorted by MPL of the TRM.	Determines Technical Specification section to be referenced by TRM section Table T10.1-1 Master Equipment Cross Reference is TS 3.3.5.2-1(1.)	
**12.	Determines if RCIC Initiation is being maintained by using LFD.	Determines that 1E11-K79A contact (Channel A1) will NOT close since the instrument has failed high as given in the Initiating Cue.	

NOTE: Contact 1E11-K79A will only close on RLW Low Level 2 (-35 inches).

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**13.	Determines if RCIC Initiation is being maintained by using LFD.	Determines that 1E11-K79B (Channel B1) contact will NOT close since the MTU will NOT trip as given in the Initiating Cue.	
**14.	Determines if RCIC Initiation is being maintained by using LFD.	Determines that RCIC Initiation is NOT being maintained since relay E51-K2, K3, K81, K85 can NOT be energized by using drawing for the TRIP Logic or by using the Minimum Channel Requirements for System Initiation Capability at bottom of LFD.	

NOTE: Minimum Channel Requirements for System Initiation Capability:

A1 & A2

A1 & B2

B1 & A2

B1 & B2

15.	Determines Technical Specification Required Actions	SRO determines that TS Table 3.3.5.2-1(1.) requires 4 channels to be operable AND SRO determines 2 of the 4 required Channels (A1 and B1) are INOP.	
**16.	Determines Technical Specification Required Actions	SRO enters TS 3.3.5.2.A and performs Required Action A.1 Immediately by Entering Condition referenced in Table 3.3.5.2-1 for the channel. The SRO immediately enters Condition 3.3.5.2.B	

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**17.	Determines Technical Specification Required Actions	SRO determines Required Action B.1 is required to be performed since RCIC Initiation Capability is NOT maintained and will declare RCIC inoperable within one hour.	
**18.	Determines Technical Specification Required Actions	SRO performs Required Action B.2 by directing Channel placed in trip within 24 hours	

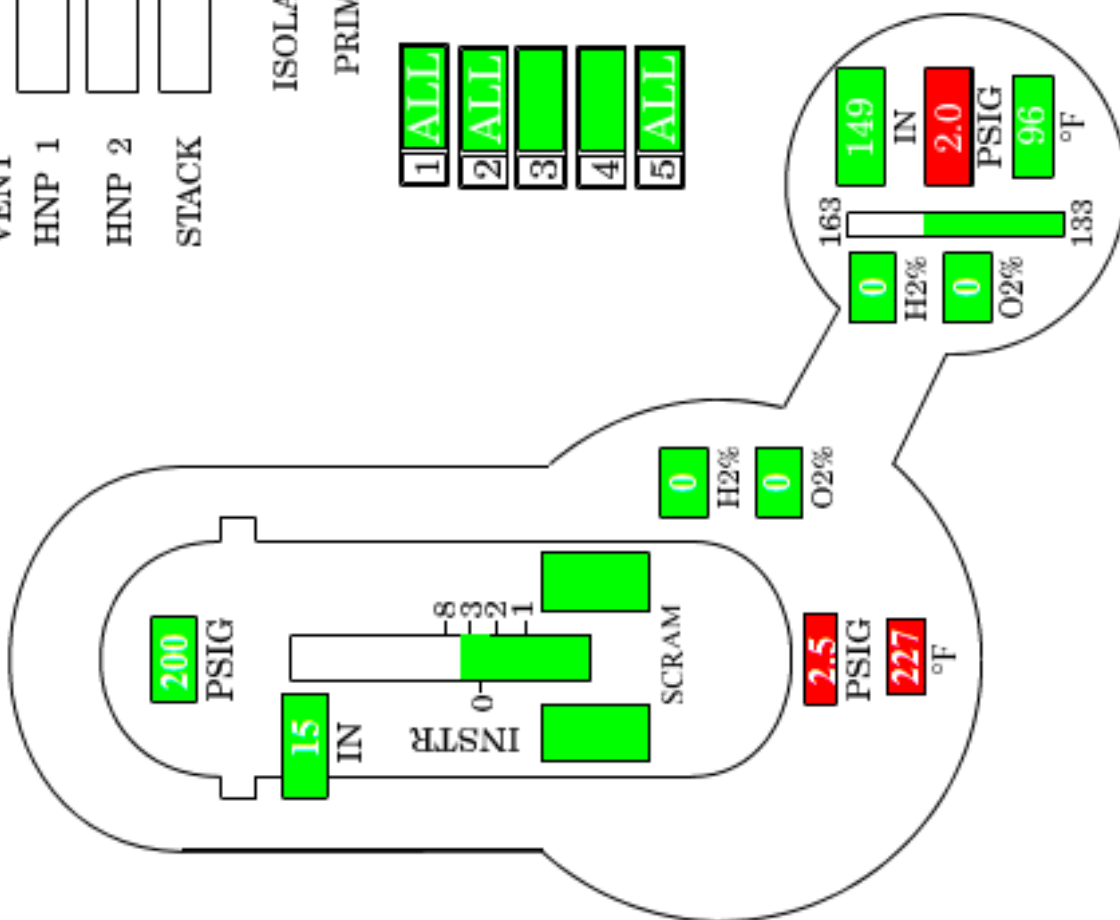
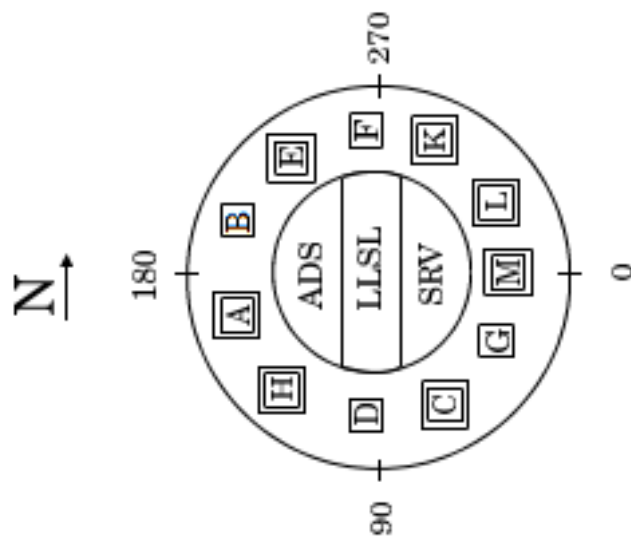
**END
TIME:** _____

NOTE: The terminating cue shall be given to the Operator when:

- After JPM step #18 is complete.
- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE FOR THE SROs: We will stop here.

EVALUATOR – PICK UP the Initiating Cue sheets AND Attachments 1 & 2.



VENT		$\mu\text{Ci/cc}$
HNP 1		
HNP 2		
STACK		
ISOLATION		
PRIMARY		

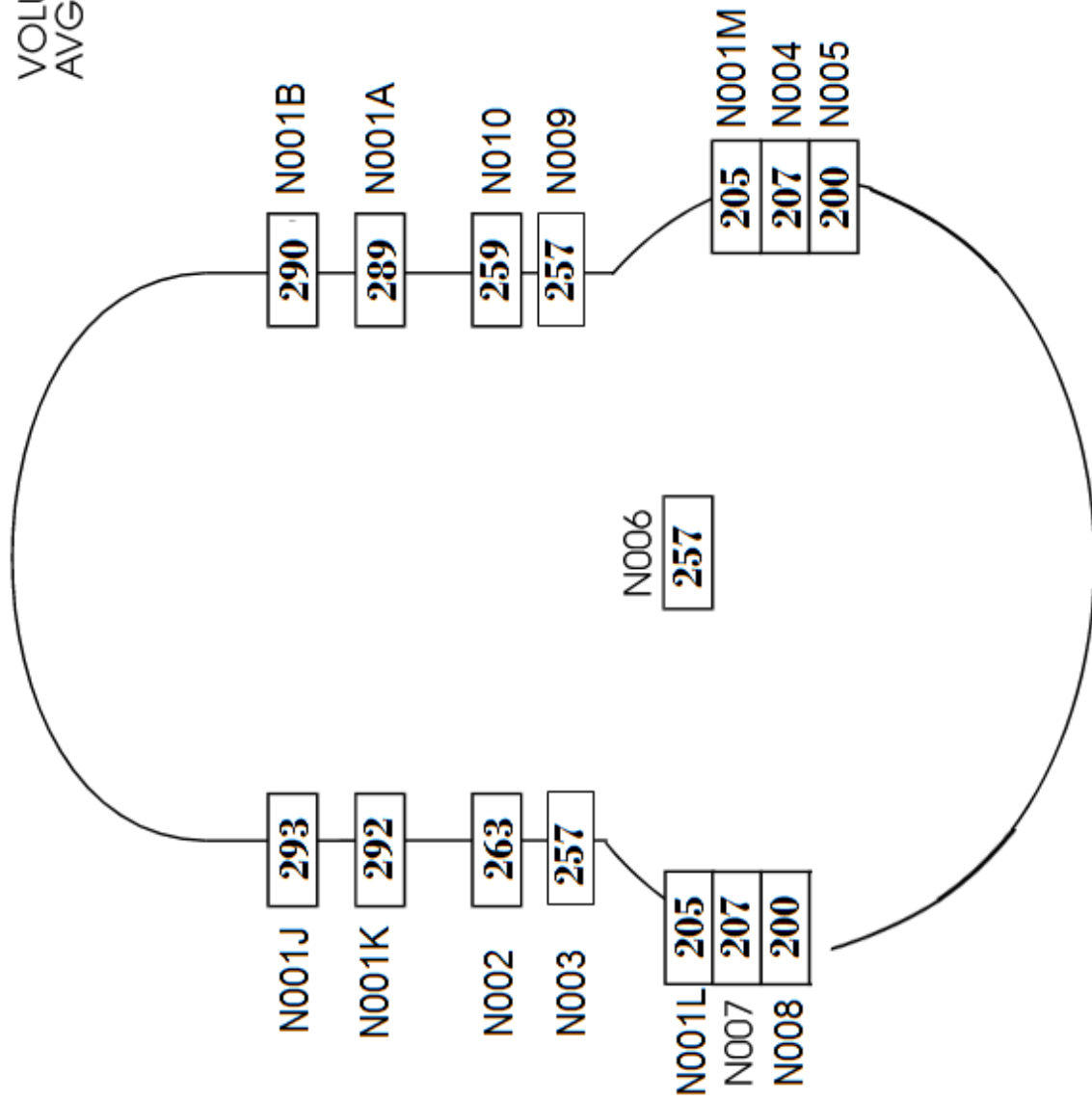
1	ALL	1 3	2A	2B
2	ALL	4 5	2D	2E
3		2C		
4				
5	ALL	SEC		

SECONDARY


HNP 1

DRYWELL TEMPERATURE DIAGNOSTIC

VOLUMETRIC
 AVG. TEMP **227** DEG. F



ATTACHMENT 2

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FINAL **ADMIN 2 - ALL**

Title: IRM Alternate Power Checks Prior To Taking The Mode Switch To Run (Admin)		
Author: ANTHONY BALL	Media Number: 2015-301 ADMIN 2	Time: 15 Minutes
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



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TASK TITLE: **IRM Alternate Power Checks Prior To Taking The Mode Switch To Run (Admin)**

JPM NUMBER: 2015-301 ADMIN 2

TASK STANDARD: This task shall be successfully completed when all of the JPM Critical Steps corresponding to 34GO-OPS-001-1, Attachment 15, have been correctly performed to determine that Average % power calculated is higher then current APRM power readings and an evaluation of power level indication is required.

TASK NUMBER: xxx.xxx

OBJECTIVE NUMBER: xxx.xxx.x

PLANT HATCH JTA IMPORTANCE RATING:

RO x.xx

SRO x.xx

K/A CATALOG NUMBER: G2.1.23

K/A CATALOG JTA IMPORTANCE RATING:

RO 4.3

SRO 4.0

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1	Unit 2
	34GO-OPS-001-1 (current version)	N/A

REQUIRED MATERIALS:	Unit 1	Unit 2
	34GO-OPS-001-1 Attachment 15 (current version)	N/A

APPROXIMATE COMPLETION TIME: 15 Minutes

SIMULATOR SETUP: N/A

UNIT 1

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Reactor Startup is in progress.
2. The crew is making preparations to startup the Steam Jet Air Ejector prior to securing the Mechanical Vacuum Pump.
3. All APRMs are currently reading 4.0% power.
4. Pre-Job Brief is NOT required.

INITIATING CUES:

IAW 34GO-OPS-001-1, perform Alternate Power Level check per Attachment 15.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences.

START TIME: _____

1.	Operator has DETERMINED the correct procedure section to use.	Operator has OBTAINS the correct procedure section to use starting at Attachment 15	
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PROMPT: **AT** this time **GIVE** the operator **Attachment 1** (34GO-OPS-001-1, ATTACHMENT 15).

PROMPT: **AT** this time, **GIVE** the Operator **Attachment 2** of this JPM (IRM Data).

2.	The operator identifies where he will obtain IRM power and range information to record on Attachment 15.	The operator identifies where the IRM power information is obtained, At 1H11-P603.	
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NOTE: ATTACHMENT 3 is the marked up answer key.

3.	The operator copies the IRM range and power level data onto the copy of 34GO-OPS-001-1 Attachment 15.	Using the copy of 34GO-OPS-001-1 Attachment 15 the data is recorded by operator.	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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**4.	The operator performs the calculation to the IRM data.	The operator uses the recorded IRM data and MULTIPLIES it by the correct constant of (0.212).	
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PROMPT: **IF** the operator request that the Calculations be verified, **THEN** as another operator perform verification but **DO NOT** correct any errors.

**5.	The operator determines that Average % power is greater than APRM power settings.	Using the Average % power, the operator DETERMINES that APRMs readings are NOT greater than the Average IRM power.	
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**6.	The operator determines an evaluation of power level is required.	The operator informs the Shift Supervisor that an evaluation of power level indication is required.	
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**END
TIME:** _____

NOTE: The terminating cue shall be given to the Operator when:

- After JPM step #6 is complete.
- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

EVALUATOR – PICK UP the Initiating Cue sheet AND ATTACHMENT 1& 2.

ATTACHMENT 1

Plant Startup	34GO-OPS-001-1	
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ATTACHMENT 15
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IRM ALTERNATE POWER CHECK

1. **Record** the IRM readings below AND **estimate** reactor power using one of the following formulas:

For IRM Ranges 7 AND 8:
 $\% \text{ Power} = (\text{IRM Reading}) \times (.0212)$

For IRM Ranges 9 AND 10:
 $\% \text{ Power} = (\text{IRM Reading}) \times (.212)$

IRM A	RANGE _____	READING _____	% POWER
IRM C	RANGE _____	READING _____	% POWER
IRM E	RANGE _____	READING _____	% POWER
IRM G	RANGE _____	READING _____	% POWER
IRM B	RANGE _____	READING _____	% POWER
IRM D	RANGE _____	READING _____	% POWER
IRM F	RANGE _____	READING _____	% POWER
IRM H	RANGE _____	READING _____	% POWER

AVERAGE % POWER = _____

Confirm each APRM reading is greater than the average * IRM Reactor Power Value. _____

Calculations IV _____

*IF any APRM reading is NOT greater than the average IRM power, **perform** an evaluation of power level indication to ensure that the APRM readings are conservative to actual reactor power. The evaluation **will be attached** to this attachment.

ATTACHMENT 2

IRM DATA

IRMS	RANGE	READING
A	9	18
C	9	20
E	9	20
G	10	20
B	9	18
D	9	22
F	10	20
H	9	18

ATTACHMENT 3

**** KEY ****

DO NOT give this to applicant

Plant Startup

34GO-OPS-001-1

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ATTACHMENT 15

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IRM ALTERNATE POWER CHECK

1. **Record** the IRM readings below AND **estimate** reactor power using one of the following formulas:

For IRM Ranges 7 AND 8:

% Power = (IRM Reading) x (.0212)

For IRM Ranges 9 AND 10:

% Power = (IRM Reading) x (.212)

IRM A	RANGE	<u>9</u>	READING	<u>18</u>	% POWER	<u>3.816</u>
IRM C	RANGE	<u>9</u>	READING	<u>20</u>	% POWER	<u>4.24</u>
IRM E	RANGE	<u>9</u>	READING	<u>20</u>	% POWER	<u>4.24</u>
IRM G	RANGE	<u>10</u>	READING	<u>20</u>	% POWER	<u>4.24</u>
IRM B	RANGE	<u>9</u>	READING	<u>18</u>	% POWER	<u>3.816</u>
IRM D	RANGE	<u>9</u>	READING	<u>22</u>	% POWER	<u>4.664</u>
IRM F	RANGE	<u>10</u>	READING	<u>20</u>	% POWER	<u>4.24</u>
IRM H	RANGE	<u>9</u>	READING	<u>18</u>	% POWER	<u>3.816</u>

AVERAGE % POWER = 33.072 divided by 8 = 4.1


Confirm each APRM reading is greater than the average * IRM Reactor Power Value.

UNSAT

Calculations IV

ABC

***IF** any APRM reading is NOT greater than the average IRM power, **perform** an evaluation of power level indication to ensure that the APRM readings are conservative to actual reactor power. The evaluation **will be attached** to this attachment.

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JPM

FINAL **ADMIN 3 - ALL**

Title: REVIEW OF RCIC PUMP OPERABILITY SURVEILLANCE		
Author: Anthony Ball	Media Number: 2015-301 ADMIN 3	Time: 15.0 Minutes
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



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UNIT 1 () UNIT 2 (X)

TASK TITLE:	REVIEW OF RCIC PUMP OPERABILITY SURVEILLANCE
JPM NUMBER:	2015-301 ADMIN 3
TASK STANDARD:	This task shall be successfully completed when all of the JPM Critical Steps corresponding to 34SV-E51-002-2, Section 7.5 TEST RESULTS, step 7.5.1 through step 7.5.6, have been correctly performed to determine the RCIC surveillance is unsat due to RCIC pump Outlet Pressure (Running) P_o , Differential Pressure & Differential Pressure dP_r .
TASK NUMBER:	300.011
OBJECTIVE NUMBER:	300.011.O

K/A CATALOG NUMBER: Generic 2.2.12

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.7

SRO 4.1

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO) / Senior Reactor Operator (SRO)

GENERAL REFERENCES:	Unit 2
	34SV-E51-002-2 (current version)
REQUIRED MATERIALS:	Unit 2
	Completed surveillance package: 34SV-E51-002-2.

APPROXIMATE COMPLETION TIME: 15.0 Minutes

SIMULATOR SETUP: N/A

UNIT 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Unit 2 is at 100% power.
2. A Normal RCIC Pump Quarterly Inservice Test (IST) Data Test has just been completed for the RCIC pump IAW 34SV-E51-002-2, RCIC Pump Operability.
3. Response Time Test was performed 30 days ago.
4. Unit 2 reactor pressure is 1043 psig.

INITIATING CUES:

Review Attachment 1 of 34SV-E51-002-2, RCIC Pump Operability.

Complete any calculations required by the surveillance data sheets.

Using Attachment 1 of 34SV-E51-002-2 data, COMPLETE Section 7.5 TEST RESULTS, step 7.5.1 through step 7.5.6.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

**START
TIME:** _____

PROMPT: **AT** this time, **GIVE** the Operator a complete copy of 34SV-E51-002-2, RCIC Pump Operability.

PROMPT: **AT** this time, **GIVE** the Operator **Attachment 2 of this JPM** (Data has been filled in for this JPM).

PROMPT: **IF** the Operator addresses the IST Book, **INFORM** the Operator that a supervisor has verified the reference data.

NOTE: JPM Steps 1 - 8 can be performed in any order.

1.	The Operator evaluates parameters on Attachment 1 and finds Turbine Speed N_r is acceptable.	On Attach. 1 of 34SV-E51-002-2, the Operator EVALUATES Turbine Speed N_r data is SATISFACTORY. 3900 rpm (Acceptable Range: 3861 (0.99) to 3939 (1.01) rpm)	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
2.	The Operator evaluates parameters on Attachment 1 and finds Inlet Pressure (Stopped) (P_i) is acceptable.	On Attach. 1 of 34SV-E51-002-2, the Operator EVALUATES Inlet Pressure (Still) (P_i) data is SATISFACTORY. 34 psig Acceptable Range: >7 psig.	
3.	The Operator evaluates parameters on Attachment 1 and finds Inlet Pressure (Running) (P_i) is acceptable.	On Attach. 1 of 34SV-E51-002-2, the Operator EVALUATES Inlet Pressure (Running) (P_i) data is SATISFACTORY. 31 psig Acceptable Range: >7 psig.	
**4.	The Operator evaluates parameters on Attachment 1 and finds Outlet Pressure (Running) P_o is NOT acceptable.	At step 7.5.2.1 of 34SV-E51-002-2, the Operator EVALUATES Outlet Pressure data IS NOT SATISFACTORY . 1072 psig is NOT in the Acceptable Range of ≥ 1135 psig.	

NOTE: At this time, the Operator may elect to inform the Shift Supervisor that Outlet Pressure (Running) P_o is NOT acceptable and RCIC has failed the surveillance. This action **IS** acceptable.

It **IS** also acceptable for the Operator to complete the review before bringing this to the supervisor's attention.

PROMPT: **IF** the Operator addresses the out of spec. item(s), **DIRECT** the Operator to finish the data package review.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**5.	The Operator calculates and then evaluates on Attachment 1 and finds Differential Pressure (2) dPr is NOT acceptable.	On Attach. 1 of 34SV-E51-002-2, the Operator CALCULATES AND EVALUATES Differential Pressure (2) dPr data IS NOT SATISFACTORY. 0.88 dPr is NOT in the Acceptable Range of 0.90 to 1.10 dPr.	

NOTE: Ratio Differential Pressure (2) dPr is equal to the Test Value dPr divided by the Reference Value dPr. $1041/1183 = 0.88$.

At this time, the Operator may elect to inform the Shift Supervisor that Differential Pressure (2) dPr is NOT acceptable and RCIC must be declared inoperable. This action **IS** acceptable.

It **IS** also acceptable for the Operator to complete the review before bringing this to the supervisor's attention.

PROMPT: **IF** the Operator addresses the out of spec. item(s), **DIRECT** the Operator to finish the data package review.

6.	The Operator evaluates parameters on Attachment 1 and finds Flowrate (4) (Q _r) is acceptable.	On Attach. 1 of 34SV-E51-002-2, the Operator EVALUATES Flowrate (4) (Q _r) data (400 gpm) is SATISFACTORY. Acceptable value is 400 gpm.	
-----------	---	---	--

PROMPT: **WHEN** the Operator addresses the Out of Spec readings, **INFORM** the Operator to finish the data package review.

7.	The Operator performs step 7.5.1 Reason for test:	The Operator places a check mark for "Norm. Surv." per the initial conditions.	
8.	The Operator performs step 7.5.2.1 RCIC pump delivers at least 400 gpm at a pump discharge pressure of greater than OR equal to 1135 psig with reactor pressure of > 920 psig AND < 1058 psig.	The Operator has determined RCIC pump Outlet Pressure (Running) P _o < 1135 psig has failed to meet the acceptance criteria of step 7.5.2.1.	

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
9.	The Operator performs step 7.5.2.2 RCIC pump discharge lines up stream of valves 2E51-F013 AND F022 are filled.	The Operator has verified that RCIC pump discharge lines up stream of valves 2E51-F013 AND F022 are filled.	

PROMPT: **WHEN** the Operator addresses the RCIC pump discharge lines upstream of valves 2E51-F013 AND F022 are filled, **INFORM** the Operator that RCIC pump discharge lines up stream of valves 2E51-F013 AND F022 are filled.

10.	The Operator performs step 7.5.2.3 2T41-B004A AND 2T41-B004B, RCIC Pump Rm Cooling Fans, auto start, WHEN RCIC is started.	The Operator has verified that 2T41-B004A AND 2T41-B004B, RCIC Pump Rm Cooling Fans, auto start, WHEN RCIC started.	
-----	--	---	--

PROMPT: **WHEN** the Operator addresses the 2T41-B004A AND 2T41-B004B, RCIC Pump Rm Cooling Fans, **INFORM** the Operator that 2T41-B004A AND 2T41-B004B, RCIC Pump Rm Cooling Fans, auto started.

11.	The Operator performs step 7.5.2.4 2P41-F040A AND 2P41-F040B, RCIC Pump Rm Cooler Valves, OPEN, WHEN cooler is running.	The Operator has verified that 2P41-F040A AND 2P41-F040B, RCIC Pump Rm Cooler Valves, OPEN, WHEN cooler is running.	
-----	---	---	--

PROMPT: **WHEN** the Operator addresses the 2P41-F040A AND 2P41-F040B, RCIC Pump Rm Cooler Valves, open when RCIC is running, **INFORM** the Operator that 2P41-F040A AND 2P41-F040B, RCIC Pump Rm Cooler Valves, auto opened.

12.	The Operator performs step 7.5.2.5 Oil level AND pressure is observed.	The Operator has verified that Oil level AND pressure is observed.	
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PROMPT: **WHEN** the Operator addresses the Oil level AND pressure is observed, **INFORM** the Operator that Oil level AND pressures were observed.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**13.	The Operator evaluates step 7.5.2.6.1 RCIC pump Outlet Pressure (Running) P _o data.	The Operator has determined that RCIC pump Outlet Pressure (Running) P _o has FAILED to meet the acceptance criteria of step 7.5.2.1.	

NOTE: At this time, the Operator may elect to inform the Shift Supervisor that Outlet Pressure (Running) P_o is NOT acceptable and RCIC has failed the surveillance. This action **IS** acceptable.

It **IS** also acceptable for the Operator to complete the review before bringing this to the supervisor's attention.

**14.	The Operator evaluates step 7.5.2.6.2 RCIC pump dPr data.	The Operator has determined that Differential Pressure dP _r has FAILED to meet the acceptance criteria of step 7.5.2.6.2.	
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NOTE: At this time, the Operator may elect to inform the Shift Supervisor that Differential Pressure (2) dPr is NOT acceptable. This action **IS** acceptable.

It **IS** also acceptable for the Operator to complete the review before bringing this to the supervisor's attention.

15.	The Operator evaluates step 7.5.2.6.2 Flowrate (4) (Q _r) data.	The Operator has determined that Flowrate (Q _r) data meets the acceptance criteria of step 7.5.2.6.2.	
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16.	The Operator evaluates step 7.5.2.7 if Response Time Test was performed.	The Operator evaluates if Response Time Test was performed.	
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PROMPT: **WHEN** the Operator addresses Response Time Test, **INFORM** the Operator to review Initial Conditions provided.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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**17.	The Operator performs step 7.5.4 Test Result.	The Operator completes step 7.5.4 and marks the step UNSAT .	
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NOTE: JPM Steps 26 - 28 can be performed in any order.

**18.	The Operator performs step 7.5.5 for RCIC pump Outlet Pressure (Running) $P_o < 1135$ psig has failed to meet the acceptance criteria of step 7.5.2.6.1.	The Operator lists in step 7.5.5 that RCIC pump Outlet Pressure (Running) P_o has FAILED to meet the acceptance criteria of step 7.5.2.1 & 7.5.2.6.1 (< 1135 psig).	
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**19.	The Operator performs step 7.5.5 RCIC Differential Pressure dP_r .	The Operator also lists in step 7.5.5 that RCIC Differential Pressure dP_r has FAILED to meet the acceptance criteria of step 7.5.2.6.1 ($dP_r < 0.90$).	
--------------	--	---	--

NOTE: If the Operator addresses writing a Condition Report (CR) based on this surveillance, inform the Operator that another operator will write the CR.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the Operator when:

- After JPM step #19 is complete.
- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

EVALUATOR – **PICK UP** the Initiating Cue sheet.

(** Indicates critical step)

ATTACHMENT 1
**** KEY ****
DO NOT give this to applicant

SNC PLANT E. I. HATCH		Pg 45 of 59
DOCUMENT TITLE: RCIC PUMP OPERABILITY	DOCUMENT NUMBER: 34SV-E51-002-2	Version No: 24.1
ATTACHMENT <u>1</u> TITLE: RCIC PUMP QUARTERLY IST DATA AND ACCEPTANCE CRITERIA		Attachment Page 1 of 1

Reference Data Changes:

Is reference data being changed? () Yes (✓) No

IF YES, list justification for so doing: _____

(2E51-C001)

PARAMETER	INSTRU MPL NO.	REFERENCE VALUE	DATE REF VALUE TAKEN	TEST VALUE	ACCEPT. RANGE	ALERT RANGE	REQ'D ACTION RANGE (1)	RATIO (3)
Turbine Speed (N _T)	2E51-R610 OR, Calibrated Handheld Tachometer	<u>3900*</u>	<u>01/18/12*</u>	<u>3900*</u>	0.99 to 1.01 RPM	N/A	N/A	N/A
Pump Suction Pressure (Still)	2E51-R604	N/A	N/A	<u>34*</u>	≥7 PSIG	N/A	< 7 PSIG	N/A
Pump Suction Pressure (Running) (P _I)	2E51-R604	<u>31*</u>	<u>01/18/12*</u>	<u>31*</u>	≥7 PSIG	N/A	< 7 PSIG	N/A
Outlet Pressure (P _O)	2E51-R601	<u>1215*</u>	<u>01/18/12*</u>	<u>1072*</u>	N/A	N/A	N/A	N/A
Differential Pressure (2) (DP _r)	N/A	<u>1183*</u>	<u>01/18/12*</u>	<u>1041*</u>	0.90 to 1.10 dPr	N/A	<0.90 or >1.10 dPr	<u>0.88*</u>
Flowrate (4) (Q _r)	2E51-R612	400	N/A	<u>400*</u>	N/A	N/A	N/A	1.0

- (1) Pump declared inoperable according to 31GO-INS-001-0.
- (2) Differential pressure must be calculated as: dP = Outlet Pressure (pump running) - Inlet Pressure (Pump running)
- (3) Ratio = Test Value divided by Reference Value
- (4) Test value must equal reference value. Ratio for flowrate must equal 1.0.

(** Indicates critical step)

ATTACHMENT 1

**** KEY ****

DO NOT give this to applicant

SOUTHERN NUCLEAR PLANT E. I. HATCH		PAGE 42 OF 59
DOCUMENT TITLE: RCIC PUMP OPERABILITY	DOCUMENT NUMBER: 34SV-E51-002-2	VERSION NO: 24.1

7.5 TEST RESULTS

7.5.1 Reason for test: () Norm. Surv. () WO # _____
() Other _____

7.5.2 Acceptance Criteria

- 7.5.2.1 RCIC pump delivers at least 400 gpm at a pump discharge pressure of ≥ 1135 psig with reactor pressure between 920 and 1058 psig. *
- 7.5.2.2 RCIC Pump discharge lines up stream of valves 2E51-F013 and 2E51-F022 are filled.
- 7.5.2.3 2T41-B004A and 2T41-B004B, RCIC Pump Rm Cooler Fans, AUTO START WHEN RCIC is started.
- 7.5.2.4 2P41-F040A and 2P41-F040B, RCIC Pump Rm Cooler Valves, OPEN, WHEN cooler is running.
- 7.5.2.5 Oil levels observed in the normal range, OR LOR written.
- 7.5.2.6 IF the 92 day test or CPT was performed:
 - 7.5.2.6.1 Steps 7.5.2.1 through 7.5.2.5 are acceptable.
 - 7.5.2.6.2 RCIC pump data matches the reference data WITHIN the limits stated on Attachment 1, 5 or 6. *
- 7.5.2.7 IF Response Time Test was performed, RCIC Pump obtained rated flow and pressure in less than OR equal to 45 seconds.

ATTACHMENT 1

**** KEY ****

DO NOT give this to applicant

SOUTHERN NUCLEAR PLANT E. I. HATCH		PAGE 43 OF 59
DOCUMENT TITLE: RCIC PUMP OPERABILITY	DOCUMENT NUMBER: 34SV-E51-002-2	VERSION NO: 24.1

- 7.5.4

Test Result:

() Satisfactory

(☒) Unsatisfactory
- 7.5.5

Unsatisfactory Conditions:

(1) RCIC pump Outlet Pressure (Running) Po has FAILED to meet the acceptance criteria of step 7.5.2.1 (<1135 psig)

(2) RCIC Differential Pressure dPr has FAILED to meet the acceptance criteria of step 7.5.2.6.2
- 7.5.6

Comments/Corrective Actions:
- 7.5.7

Test completed and/or verified by:

Print Name

/

Initial

/

Date

Print Name

/

Initial

/

Date

Print Name

/

Initial

/

Date

Print Name

/

Initial

/

Date
- Page 15 of 18

ATTACHMENT 2 PROVIDE TO APPLICANT

SNC PLANT E. I. HATCH		Pg 45 of 59
DOCUMENT TITLE: RCIC PUMP OPERABILITY	DOCUMENT NUMBER: 34SV-E51-002-2	Version No: 24.1
ATTACHMENT 1 TITLE: RCIC PUMP QUARTERLY IST DATA AND ACCEPTANCE CRITERIA		Attachment Page 1 of 1

Reference Data Changes:

Is reference data being changed? () Yes (✓) No

IF YES, list justification for so doing: _____

(2E51-C001)

PARAMETER	INSTRU MPL NO.	REFERENCE VALUE	DATE REF VALUE TAKEN	TEST VALUE	ACCEPT. RANGE	ALERT RANGE	REQ'D ACTION RANGE (1)	RATIO (3)
Turbine Speed (N _r)	2E51-R610 OR, Calibrated Handheld Tachometer	<u>3900</u> *	<u>01/18/12</u> *	<u>3900</u> *	0.99 to 1.01 RPM	N/A	N/A	N/A
Pump Suction Pressure (Still)	2E51-R604	N/A	N/A	<u>34</u> *	≥7 PSIG	N/A	< 7 PSIG	N/A
Pump Suction Pressure (Running) (P _i)	2E51-R604	<u>31</u> *	<u>01/18/12</u> *	<u>31</u> *	≥7 PSIG	N/A	< 7 PSIG	N/A
Outlet Pressure (P _o)	2E51-R601	<u>1215</u> *	<u>01/18/12</u> *	<u>1072</u> *	N/A	N/A	N/A	N/A
Differential Pressure (2) (DP _r)	N/A	<u>1183</u> *	<u>01/18/12</u> *	<u>1041</u> *	0.90 to 1.10 dPr	N/A	<0.90 or >1.10 dPr	
Flowrate (4) (Q _r)	2E51-R612	400	N/A	<u>400</u> *	N/A	N/A	N/A	1.0

- (1) Pump declared inoperable according to 31GO-INS-001-0.
- (2) Differential pressure must be calculated as: dP = Outlet Pressure (pump running) - Inlet Pressure (Pump running)
- (3) Ratio = Test Value divided by Reference Value
- (4) Test value must equal reference value. Ratio for flowrate must equal 1.0.

**ATTACHMENT 2
PROVIDE TO APPLICANT**

SNC PLANT E. I. HATCH

Pg 42 of 59

DOCUMENT TITLE:
RCIC PUMP OPERABILITY

DOCUMENT NUMBER:
34SV-E51-002-2

Version No:
24.1

7.5 TEST RESULTS

7.5.1 Reason for test: () Norm. Surv. () WO # _____
() Other _____

7.5.2 Acceptance Criteria

7.5.2.1 RCIC pump delivers at least 400 gpm at a pump discharge pressure of ≥ 1135 psig with reactor pressure between 920 and 1058 psig. *

7.5.2.2 RCIC Pump discharge lines up stream of valves 2E51-F013 and 2E51-F022 are filled.

7.5.2.3 2T41-B004A and 2T41-B004B, RCIC Pump Rm Cooler Fans,
AUTO START WHEN RCIC is started.

7.5.2.4 2P41-F040A and 2P41-F040B, RCIC Pump Rm Cooler Valves, OPEN,
WHEN cooler is running.

7.5.2.5 Oil levels observed in the normal range, OR LOR written.

7.5.2.6 IF the 92 day test or CPT was performed:

7.5.2.6.1 Steps 7.5.2.1 through 7.5.2.5 are acceptable.

7.5.2.6.2 RCIC pump data matches the reference data WITHIN the limits stated on Attachment 1, 5 or 6. *

7.5.2.7 IF Response Time Test was performed,
RCIC Pump obtained rated flow and pressure in less than OR equal to 45 seconds.

7.5.4 Test Result:

() Satisfactory () Unsatisfactory

7.5.5 Unsatisfactory Conditions: _____

7.5.6 Comments/Corrective Actions: _____

**ATTACHMENT 2
PROVIDE TO APPLICANT**

SNC PLANT E. I. HATCH

Pg 43 of 59

DOCUMENT TITLE:
RCIC PUMP OPERABILITY

DOCUMENT NUMBER:
34SV-E51-002-2

Version No:
24.1

7.5.7 Test completed and/or verified by:

Print Name / Initial / Date


Print Name / Initial / Date

Print Name / Initial / Date

Print Name / Initial / Date

Print Name / Initial / Date

Print Name / Initial / Date

Southern Nuclear Operating Company		
	Nuclear Management Form	Training Material Cover/Revision Sheet NMP-TR-214-F01 Version 2.0 Page 1 of 14


Southern Nuclear Company

Operations Training
JPM

FINAL **ADMIN 4 - RO ONLY**

Title: DETERMINE THE EVACUATION ROUTE DURING AN EMERGENCY		
Author: Anthony Ball	Media Number: 2015-301 ADMIN 4	Time: 9.0 Minutes
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



Southern Nuclear Operating Company			
	Nuclear Management Form	Training Material Cover/Revision Sheet	NMP-TR-214-F01 Version 2.0 Page 2 of 14

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UNIT 1 (X) UNIT 2 (X)

TASK TITLE:	DETERMINE THE EVACUATION ROUTE DURING AN EMERGENCY
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JPM NUMBER:	2015-301 ADMIN 4
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TASK STANDARD:	This task shall be successfully completed when all of the JPM Critical Steps corresponding to NMP-EP-111-002, Instruction 5 Section IV, have been correctly performed to evacuate via the PESB, then using THE ROAD BEHIND THE LOW LEVEL RADWASTE BUILDING and then SOUTH on US Highway 1.
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TASK NUMBER:	200.059
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OBJECTIVE NUMBER:	200.059.A
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PLANT HATCH JTA IMPORTANCE RATING:

RO 3.86

SRO 3.96

K/A CATALOG NUMBER: G2.4.39**K/A CATALOG JTA IMPORTANCE RATING:**

RO 3.9

SRO 3.80

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1 & 2
	NMP-EP-111-002 (current version)
REQUIRED MATERIALS:	Unit 1 & 2
	NMP-EP-111-002 (current version)

APPROXIMATE COMPLETION TIME: 9.0 Minutes**SIMULATOR SETUP:** N/A

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. A Reactor scram has occurred.
2. Plant conditions have resulted in an Elevated Radioactive release.
3. A Prompt Off-Site Dose Assessment calculation has been performed and an Offsite Release has been verified to be in progress.
4. Peak calculated TEDE is 100 mRem/hr.
5. The Emergency Director (ED) has declared a Site Area Emergency.
6. The ED has directed a PA announcement to be performed IAW NMP-EP-111.
7. SPDS is available.

INITIATING CUES:

Your task is to fill out the appropriate form required to make the PA announcement for this emergency IAW NMP-EP-111-002, "EMERGENCY NOTIFICATION NETWORK COMMUNICATOR INSTRUCTIONS – HATCH."

NOTE: Another Operator will make the actual page announcement IAW NMP-EP-111 Checklist 1 "Page Announcements."

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

START TIME: _____

NOTE: The Operator may review NMP-EP-111 Checklist 1 "Page Announcements".

PROMPT: **AT THIS TIME PROVIDE** the operator with the following:

- o NMP-EP-111-002, "EMERGENCY NOTIFICATION NETWORK COMMUNICATOR INSTRUCTIONS – HATCH."
- AND
- o Also **PROVIDE** the attached SPDS Attachments.

1.	Select correct section of NMP-EP-111-002.	The operator uses NMP-EP-111-002, Table of Contents and determines that Instruction 5 - Emergency Page Announcement Selection Guidance is the required section.	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**2.	Select the correct form to use for a Site-Area Emergency announcement.	The operator uses NMP-EP-111-002, Instruction 5 to determine that "IV. Standard Announcement For Notification Of Site-Area Or General Emergency" (see page 14) is the required form.	

NOTE: The operator may review the NOTES at the top of NMP-EP-111-002, "IV. Standard Announcement For Notification Of SAE Or GE"

3.	IV. a. Refer to "Selection Guidance" information on page 11 to determine the applicable rally point, exit route and evacuation route. Record the applicable information.	The operator determines that wind direction is required in order to select the correct evacuation route.	
-----------	--	--	--

**4.	Check wind direction.	At panel 1H11-P690, wind direction checked on one of the following: SPDS MIDAS screen OR SPDS MET Data screen	
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STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**5.	Determine the applicable <u>rally point</u> . Record the applicable information.	The Operator uses "Selection Guidance" information on page 11 to determine: <u>Rally point:</u> PESB The Operator then RECORDS the information in appropriate section of "IV. Standard Announcement For Notification Of Site-Area Or General Emergency."	
**6.	Determine the applicable, <u>exit route</u> . Record the applicable information.	The Operator uses "Selection Guidance" information on page 11 to determine: <u>Exit Route:</u> Road behind Low Level Radwaste Building The Operator then RECORDS the information in appropriate section of "IV. Standard Announcement For Notification Of Site-Area Or General Emergency."	
**7.	Determine the applicable <u>evacuation route</u> . Record the applicable information.	The Operator uses "Selection Guidance" information on page 11 to determine: <u>Evacuation Route:</u> U.S. Highway 1 - South to Appling Co. High School/ Baxley The Operator then RECORDS the information in appropriate section of "IV. Standard Announcement For Notification Of Site-Area Or General Emergency."	

NOTE: If the operator uses the 10 Meter, 23 Meter or the 60 Meter wind direction, the Site Exit Route will (**INCORRECTLY**) state "Main Access Road."

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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NOTE: The Operator may select DRILL for item 1. This is an ACCEPTABLE practice for the purpose of training evaluations at Plant Hatch.

PROMPT: **IF** the Operator addresses contacting Security to activate the PA system in the Simulator and Skills Buildings **INFORM** the Operator that Security has been directed to activate the PA system in the Simulator and Skills Buildings

PROMPT: **IF** the Operator addresses NMP-EP-111 Checklist 1 “Page Announcements,” as the Shift Supervisor, **INFORM** the Operator that this will performed by another Operator.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the Operator when:

- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

EVALUATOR ANSWER KEY

IV. STANDARD ANNOUNCEMENT INSTRUCTIONS FOR SITE-AREA OR GENERAL EMERGENCY

NOTES:

- The appropriate emergency tone and announcement must be made as soon as possible, but not to exceed **15** minutes after the initial emergency declaration
 - The person making this announcement is expected to announce all applicable information.
- a. Refer to “Selection Guidance” information on page 11 to determine the applicable rally point, exit route and evacuation route. Record the applicable information below needed for this announcement.
 - b. Contact Security to direct activation of the Public Address system in the Simulator and Skills Buildings PRIOR to beginning the announcement.
 - c. Perform IAW NMP-EP-111 Checklist 1 “Page Announcements”.

(Select one) ☒ **Site-Area Emergency** or ☐ **General Emergency**

1. **ATTENTION ALL PERSONNEL. THIS (☒ IS / ☐ IS NOT) A DRILL. A/AN **Site-Area Emergency** HAS BEEN DECLARED.**
2. (Select one): A RADIOLOGICAL RELEASE (☒ IS / ☐ IS NOT) IN PROGRESS.
3. **ALL EMERGENCY RESPONSE PERSONNEL ARE TO REPORT TO YOUR EMERGENCY RESPONSE FACILITY AND INITIATE EMERGENCY IMPLEMENTING PROCEDURES.**

NOTE:

Announcement of items 4 or 5 may be discontinued upon verification that non-essential personnel have left the plant site.

4. Use if a radiological release **is not** in progress

ALL NON-ESSENTIAL PERSONNEL ARE TO EXIT THE PLANT SITE USING THE MAIN ACCESS ROAD. THE EVACUATION ROUTE IS EITHER DIRECTION ON U. S. HIGHWAY 1.

5. Use if a radiological release **is** in progress

ALL NON-ESSENTIAL PERSONNEL ARE TO EXIT THE PLANT SITE USING (select one):

☐ THE MAIN ACCESS ROAD, ☒ **THE ROAD BEHIND THE LOW LEVEL RADWASTE BUILDING**, ☐ OTHER (specify another exit route) _____.

AND

THE EVACUATION ROUTE IS (Select one):

☐ EITHER DIRECTION ON U.S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT EITHER TOOMBS CO. HIGH SCHOOL IN LYONS OR APPLING CO. HIGH SCHOOL IN BAXLEY.

☒ **SOUTH ON U. S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT APPLING CO. HIGH SCHOOL IN BAXLEY.**

☐ NORTH ON U. S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT TOOMBS CO. HIGH SCHOOL IN LYONS.

EVALUATOR ANSWER KEY

SELECTION GUIDANCE FOR STANDARD ANNOUNCEMENT RALLY POINT/SITE EXIT ROUTE/ EVACUATION ROUTE

Is a radiological release in progress? ☒ Yes ☐ No

IF a. A radiological release Is Not in progress:

THEN b. The following rally point, site exit route, and evacuation route will be used:

- Rally Point – Plant Entry & Security Building (PESB)
- Site Exit Route – Main Access Road
- Evacuation Route – Either direction on U. S. Hwy 1.

IF c. A radiological release Is in progress:

THEN Use the chart below to determine the rally point, site exit route, evacuation route and State Reception Center, based on wind direction.

Consult with Security to determine alternative(s) IF designated rally point and/or site exit route cannot be used. The use of an alternate rally point requires notifying Security and HP prior to making the announcement.

NOTE:

The 15 minute average wind direction information should be read using the meteorological instrumentation that corresponds to the primary release point.

Wind Direction From:	Rally Point:	Site Exit Route:	Evacuation Route/State Reception Center
340° - 60°	Gate 17	Main Access Road	U.S. Highway 1 - North to Toombs Co. High School/Lyons
61° - 110°	PESB	Road behind Low Level Radwaste Building	U.S. Highway 1 - South to Appling Co. High School/ Baxley
111° - 225°	PESB	Main Access Road	U.S. Highway 1 - South to Appling Co. High School/ Baxley
226° - 339°	PESB	Main Access Road	Either direction on U.S. Highway 1 to Toombs Co. High School/Lyons or Appling Co. High School/Baxley

MIDAS INFORMATION

METEOROLOGICAL

10M WIND SPD
1Y33-R601
5.0

100M WIND SPD
1Y33-R603
4.0

10M WIND DIR
1Y33-R601
50

100M WIND DIR
1Y33-R603
65

AMBIENT TEMP
(F) 10M
55

DELTA T
60-10
-0.5

DELTA T
100-10
-1.0

RAINFALL
15 MIN. AVG
.000

RADIOLOGICAL

MAIN STACK

NORMAL RANGE
1D11-K600A
9.0E 05

KAMAN
1D11-R631
1.04E 04

1D11-K600B
9.0E 05

STABILITY CLASS
D

U1 RX. BLDG. VENT

NORMAL RANGE
1D11-K619A
5.4E 01

KAMAN
1D11-R631
5.3E 01

1D11-K619B
5.3E 01

U2 RX. BLDG. VENT

NORMAL RANGE
2D11-K636A
4.00E 01

KAMAN
2D11-R631
4.00E 01

2D11-K636B
4.00E 01


METEROLOGICAL DATA

WIND	(DIRECTION FROM)	15-MIN. AVERAGE	STD-DEV	SPEED	15-MIN. AVERAGE
10 M ELEVATION	50 DEG	51 DEG	12 DEG	1 MPH	0 MPH
60 M ELEVATION	57 DEG	58 DEG	6 DEG	2 MPH	2 MPH
100 M ELEVATION	65 DEG	64 DEG	4 DEG	4 MPH	4 MPH
23 M ELEVATION - BACKUP	55 DEG	54 DEG	4 DEG	2 MPH	2 MPH

TEMPERATURE	15-MIN AVERAGE			
10 M ELEVATION AMBIENT	55 DEG F	FLOW*	----	
10 M ELEVATION AMBIENT - BACKUP	56 DEG F	FLOW	----	
10 M DEWPOINT			----	
60 M - 10 M DELTA TEMP.	-0.5 DEG F	FLOW		-4.1 DEG F
100 M - 10 M DELTA TEMP.	-1.0 DEG F	FLOW		-2.4 DEG F
45 M - 10 M DELTA TEMP. - BACKUP	1.5 DEG F	FLOW		2.4 DEG F

PERCIPITATION

.00 INCHES SINCE MIDNIGHT

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FINAL **ADMIN 5 (SRO ONLY)**

Title: Evaluate Venting DW Irrespective of Offsite Release rates IAW PCG (ALTERNATE PATH)		
Author: Anthony Ball	Media Number: 2015-301 ADMIN 5	Time: 20.0 Minutes
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



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UNIT 1 () UNIT 2 (X)

TASK TITLE: Evaluate Venting DW Irrespective of Offsite
Release rates IAW PCG (ALTERNATE PATH)

JPM NUMBER: 2015-301 ADMIN 5

TASK STANDARD: This task shall be successfully completed when all of the JPM Critical Steps corresponding to 31EO-PCG-001-2, Path G2 have been correctly performed to first initiate Containment venting and then securing Containment venting after release rates exceed limits.

TASK NUMBER: 201.072

PLANT HATCH JTA IMPORTANCE RATING:

RO 4.57

SRO 3.88

K/A CATALOG NUMBER: G2.3.11

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.80

SRO 3.70

OPERATOR APPLICABILITY: Senior Reactor Operator (SRO)

GENERAL REFERENCES:	Unit 2
	31EO-PCG-001-2

REQUIRED MATERIALS:	Unit 2
	31EO-PCG-001-2

APPROXIMATE COMPLETION TIME: 20.0 Minutes

SIMULATOR SETUP: N/A

UNIT 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. You are the SS on Unit 2.
2. A reactor scram occurred due to a LOCA.
3. An Emergency Depressurization has been performed.
4. RWL is being maintained using all available Core Spray and RHR pumps.
5. NO Primary Containment Venting is in progress.
6. NO Primary Containment Purging is in progress.
7. Estimated Offsite Dose has been calculated at 300 mR/hr.
8. A Projected Offsite Dose has been calculated at 400 mR/hr.
9. Plant conditions are indicated on Attachment 1.

INITIATING CUES:

Evaluate the **PCG** EOP flowchart, “31EO-PCG-001-2” **ONLY**.

Raise your hand when you are ready to give direction to your crew.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

START TIME: _____

PROMPT: At this time **PROVIDE ALL ATTACHMENTS** to the student.

**1.	Enters the PCG flowchart.	The operator ENTERS 31EO-PCG-001 flowchart.	
2.	Confirm the H ₂ O ₂ analyzers are in service.	The operator DETERMINES that the the H ₂ O ₂ analyzers are in service by checking 2H11-P700 or SPDS.	
**3.	Evaluate the override at C-5.	The operator DETERMINES that path G-2 Point "S" is to be entered.	
4.	At D-6 on path G-2, determine if Projected TEDE is >1000 mr/hr.	The operator DETERMINES Projected TEDE is <1000 mr/hr based on Initial conditions.	
5.	At D-6 on path G-2, determine if there is detectable Hydrogen in drywell or torus.	The operator DETERMINES there is Hydrogen in drywell or torus based on Initial conditions.	
6.	Determines Estimated Offsite Dose.	The operator DETERMINES and RECORDS at E-7 the Estimated Offsite Dose to be 300 mr/hr based on Initial conditions.	

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
7.	Determines Projected Offsite Dose.	The operator DETERMINES and RECORDS at E-7 the Projected Offsite Dose to be 400 mr/hr based on Initial conditions.	
8.	Determines the TOTAL Estimated and Projected Peak TEDE.	The operator DETERMINES and RECORDS at F-7 the TOTAL Estimated and Projected Peak TEDE to be 700 mr/hr (300 + 400 = 700).	

NOTE: The operator will raise their hand and the debrief will begin here.

**9.	Uses step at J-5 on path G-2, to direct an NPO to start Drywell Cooling Fans and Return Fans.	The operator DIRECTS an NPO to start Drywell Cooling Fans and Return Fans.	
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PROMPT: **WHEN** the operator directs the starting of DW Cooling Fans and Return Fans, **INFORM** the operator that DW Cooling Fans and Return Fans are running.

10.	Evaluates decision step at G-7, on path G-2, to determine whether Torus Water level is below 300 inches.	The operator DETERMINES that Torus level is below 300 inches. (Chooses YES, proceeds to the right to vent the Torus).	
**11.	Using step at H-7, on path G-2, directs Vent torus per 31EO-EOP-104-2. If necessary, defeat isolation interlocks.	The operator DIRECTS an NPO to Vent torus per 31EO-EOP-104-2. If necessary, defeat isolation interlocks.	

PROMPT: **WHEN** directed to initiate venting of the Torus, **INFORM** the operator that, using Time Compression, Torus venting is in progress.

PROMPT: **IF ASKED** whether the DW is being vented through the Torus, **INFORM** the operator the indications are DW pressure and Torus pressure are both slowly decreasing.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**12.	Using step at J-7, on path G-2, directs Initiate and maximize drywell nitrogen purge flow per 31EO-EOP-104-2.	The operator DIRECTS an NPO to Initiate and maximize primary containment purge flow per 31EO-EOP-104-2.	

PROMPT: **WHEN** directed to initiate Primary Containment Purge flow, **INFORM** the operator that, using Time Compression, Primary Containment purge flow has been initiated and maximized.

PROMPT: **AFTER** operator is informed that Primary Containment purge flow has been initiated and maximized, **INFORM** the operator that 30 minutes has elapsed and the TSC RP Supervisor reports that the Projected Offsite Dose is now 1100 mr/hr.

13.	Evaluates the override at D-6 on path G-2, to determine if Projected TEDE is >1000 mr/hr.	The operator DETERMINES Projected TEDE is >1000 mr/hr (1100 mr/hr).	
14.	Evaluates the override at D-6 on path G-2, to determine if adequate core cooling is assured.	The operator DETERMINES adequate core cooling is assured based on Initial conditions.	

**15.	Using step at D-6, on path G-2, directs torus venting secured.	The operator DIRECTS an NPO to secure torus venting.	
--------------	--	--	--

PROMPT: **WHEN** the operator addresses securing Torus venting, **INFORM** the operator that torus venting has been secured.

**16.	Using step at D-6, on path G-2, directs nitrogen purge flow secured.	The operator DIRECTS an NPO to secure nitrogen purge flow.	
--------------	--	--	--

PROMPT: **WHEN** the operator addresses securing Torus venting, **INFORM** the operator that nitrogen purge flow has been secured.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the operator when:

- With NO reasonable progress, the operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

(Indicates critical step)**

UNIT 2

READ TO THE OPERATOR

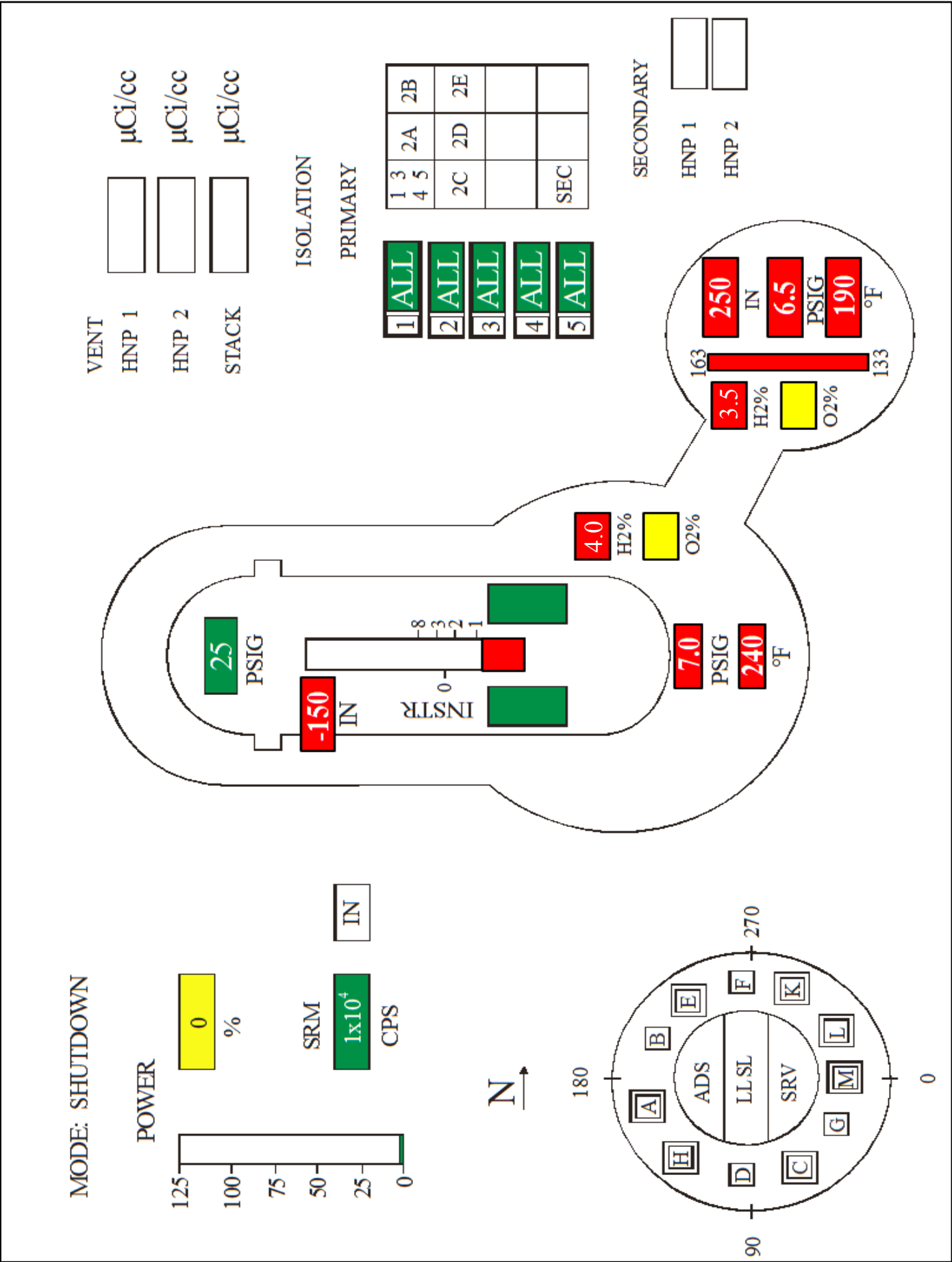
INITIAL CONDITIONS:

1. You are the SS on Unit 2
2. A reactor scram occurred due to a LOCA
3. An Emergency Depressurization has been performed
4. RWL is being maintained using all available Core Spray and RHR pumps
5. NO Primary Containment Venting is in progress
6. NO Primary Containment Purging is in progress
7. Estimated Offsite Dose has been calculated at 300 mR/hr
8. A Projected Offsite Dose has been calculated at 400 mR/hr
9. Plant conditions are indicated on Attachment 1.

INITIATING CUES:

Evaluate the **PCG** EOP flowchart, “31EO-PCG-001-2” **ONLY**.

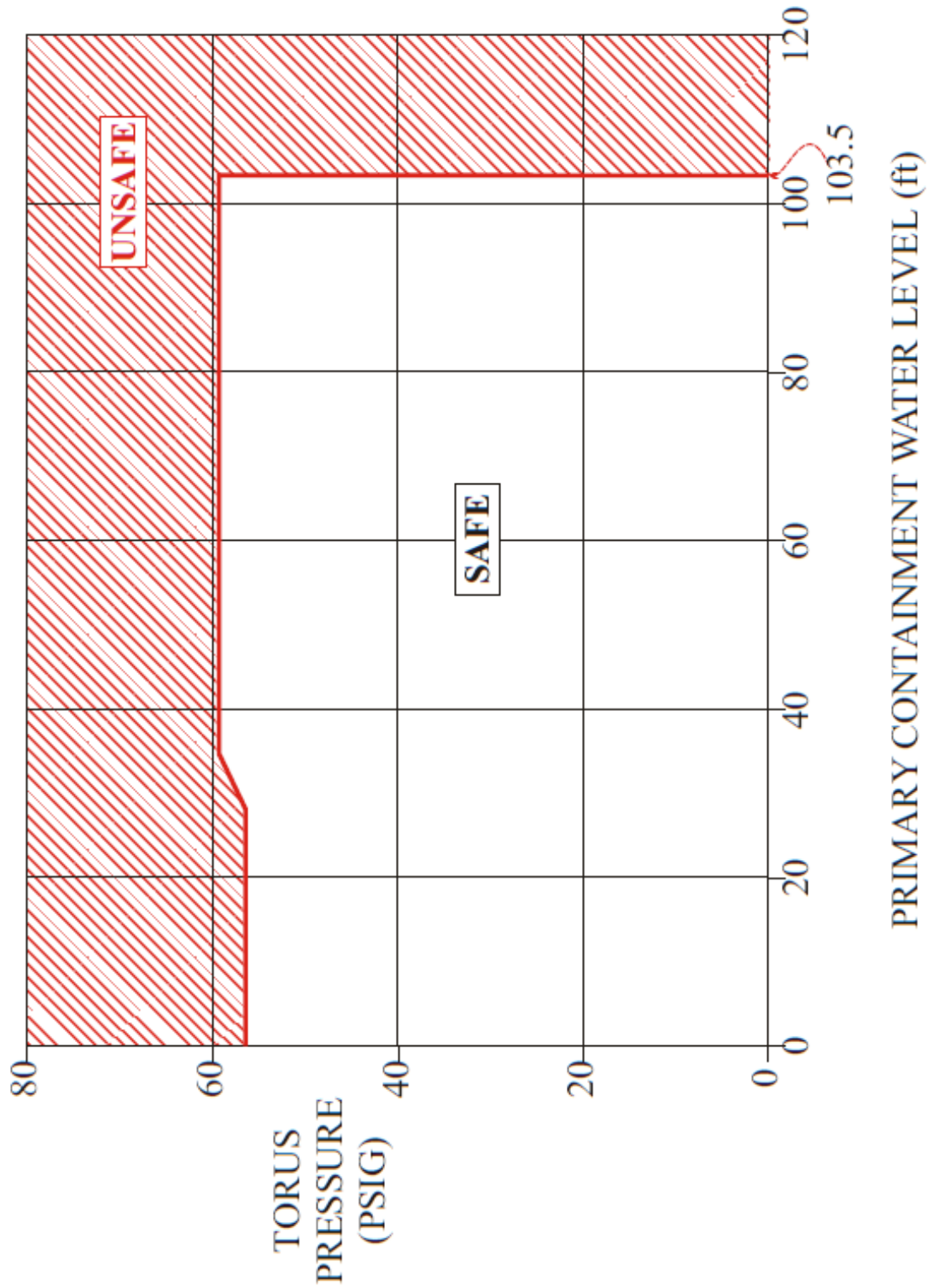
Raise your hand when you are ready to give direction to your crew.



GRAPH 13

UNIT 2

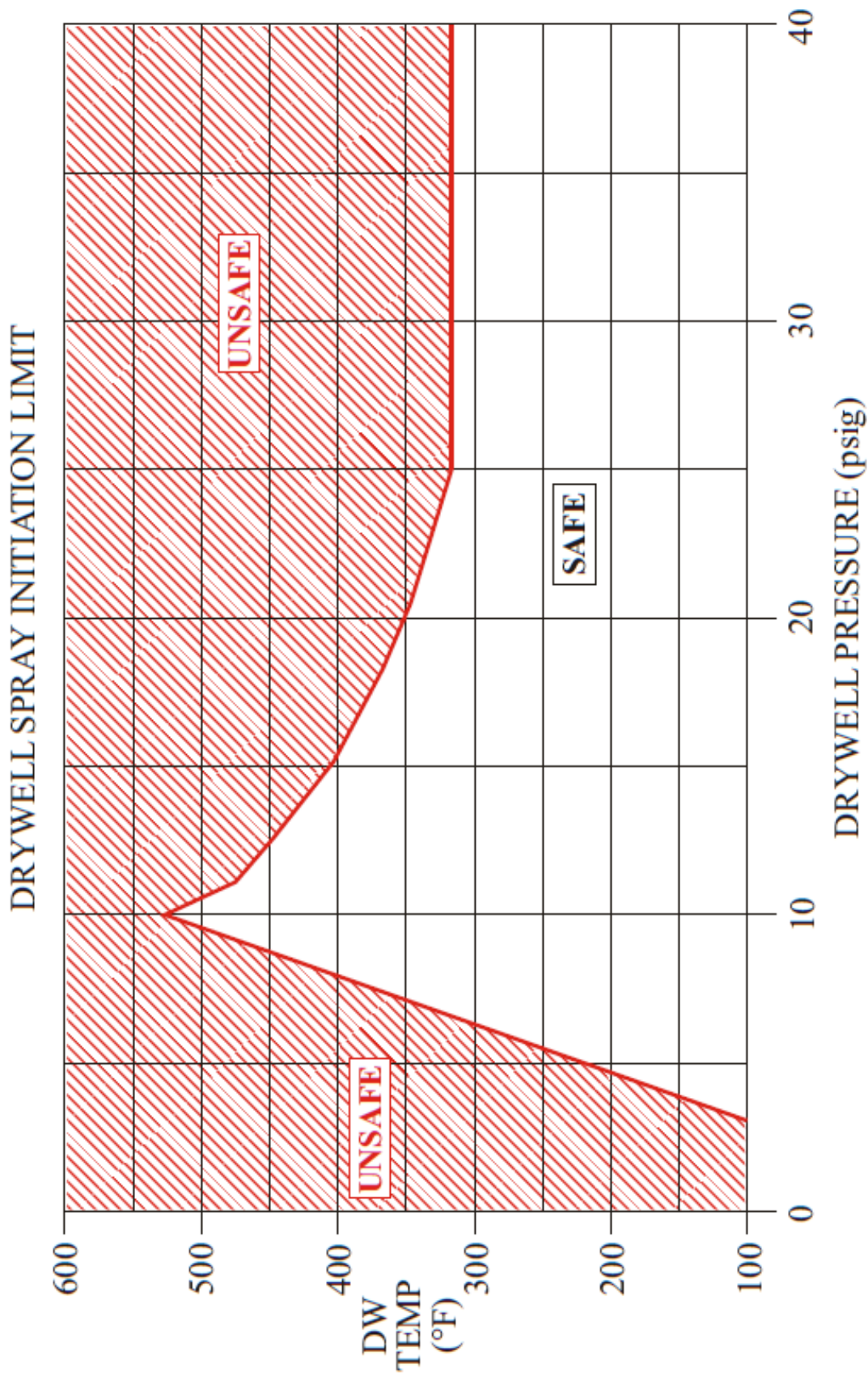
PRIMARY CONTAINMENT PRESSURE LIMIT




NOTE: May use SPDS Emergency Displays in place of this Graph.

GRAPH 8

UNIT 2



NOTE: May use SPDS Emergency Displays in place of this Graph.

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FINAL **ADMIN 6 SRO ONLY**

Title: Emergency Classification - Complete NMP-EP-110 Checklist 1		
Author: Anthony Ball	Media Number: 2015-301 ADMIN 6	Time Critical: 15 Minutes
Line Technical Review By (N/A for minor revisions)		Date:
Reviewed by Instructional Technologist or designee:		Date:
Approved By (Training Program Manager or Lead Instructor) Ed Jones		Date 03/10/2015



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UNIT 1 (X) UNIT 2 (X)

TASK TITLE: **Emergency Classification - Complete NMP-EP-110 Checklist 1**

JPM NUMBER: 2015-301 ADMIN 6

TASK STANDARD: This task shall be successfully completed when all of the JPM Critical Steps corresponding to NMP-EP-110 Checklist 1, Step 1.0 through 6.0, have been correctly performed to classify the event.

TASK NUMBER: 200.052

OBJECTIVE NUMBER: 200.052.A

PLANT HATCH JTA IMPORTANCE RATING:

RO 4.67

SRO 4.04

K/A CATALOG NUMBER: Generic 2.4.41

K/A CATALOG JTA IMPORTANCE RATING:

RO 2.30

SRO 4.1

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1 & 2
	NMP-EP-110 (current version)

REQUIRED MATERIALS:	Unit 1 & 2
	NMP-EP-110 (current version)

APPROXIMATE COMPLETION TIME: 15 Minutes

SIMULATOR SETUP: NA

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. You are the On Shift Shift Manager.
2. **Units 1 and 2** are operating at 100% power. The FAA Atlanta calls Plant Hatch control room on the telephone. A NPO answers the phone. The following information is rapidly confirmed with the NRC Operations Center using the Emergency Notification System (ENS) phone.
3. The NRC Operations Center confirms:
 - One (1) hour ago, a DC 10, Delta Flight D-1492, took off from Atlanta, headed for Houston Texas.
 - The plane has inexplicably changed course, is now headed east, and is 20 miles west of Macon, Georgia.
 - Atlanta Flight Control has tried all available methods to communicate with the flights' crew, but has been unsuccessful.
 - Based on the planes flight path and rate of descent, it appears that Plant Hatch is in the flight path of a Track of Interest (TOI).

The flight will reach Plant Hatch, by best estimate, in 29 minutes.
4. The Control Room has contacted the NRC and NRC has confirmed the information.
5. NO Peer Check is available.

INITIATING CUES:

Classify the Event by Completing NMP-EP-110 Checklist 1
Steps 1 through 5.

Raise your hand when you have completed Checklist 1, Step 5.

This JPM is **TIME CRITICAL**.

Current time is: _____

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. (AG-TRN-01-0685 Section 6.5.3 provides examples)

NOTE: The **CLASSIFICATION** must be made within 15 minutes of the initial prompt and the Student states they understand the initial conditions.

NOTE: The Student is expected to obtain a copy of Checklist 1 if the Initiating Cue is given in the Simulator or Control Room.

**1st START
TIME:** _____

1.	Operator identifies the procedure needed to perform the task.	The operator has OBTAINED Check List 1, which is contained in NMP-EP-110.	
2.	Determine the appropriate Initiating Condition Matrix for classification of the event based on the current operating mode: HOT IC/EAL Matrix Eval Chart COLD IC/EAL Matrix Eval Chart Both HOT & COLD IC/EAL Matrix (Checklist 1, Step 1)	On Checklist 1, Step 1, The operator has selected HOT IC/EAL Matrix Evaluation Chart	

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
3.	<p>Evaluate the status of the fission product barrier using Figure 1, Fission Product Barrier Evaluation.</p> <p>Select the condition of each fission product barrier:</p> <p style="padding-left: 40px;">Fuel Cladding Integrity</p> <p style="padding-left: 40px;">*****</p> <p style="padding-left: 40px;">*****</p> <p>(Checklist 1, Step 2)</p>	<p>On Checklist 1, Step 2.a,</p> <p>The operator has selected INTACT for Fuel Cladding Integrity.</p>	
4.	<p>Evaluate the status of the fission product barrier using Figure 1, Fission Product Barrier Evaluation.</p> <p>Select the condition of each fission product barrier:</p> <p style="padding-left: 40px;">*****</p> <p style="padding-left: 40px;">Reactor Coolant System</p> <p style="padding-left: 40px;">*****</p> <p>(Checklist 1, Step 2)</p>	<p>On Checklist 1, Step 2.a,</p> <p>The operator has selected INTACT for Reactor Cooling System.</p>	
5.	<p>Evaluate the status of the fission product barrier using Figure 1, Fission Product Barrier Evaluation.</p> <p>Select the condition of each fission product barrier:</p> <p style="padding-left: 40px;">*****</p> <p style="padding-left: 40px;">*****</p> <p style="padding-left: 40px;">Containment Integrity</p> <p>(Checklist 1, Step 2)</p>	<p>On Checklist 1, Step 2.a,</p> <p>The operator has selected INTACT for Containment Integrity.</p>	
6.	<p>Determine the highest applicable fission product barrier Initiating Condition (IC).</p> <p>(Checklist 1, Step 2.b.)</p>	<p>On Checklist 1, Step 2.b,</p> <p>The operator has selected NONE</p>	

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
7.	Evaluate AND determine the highest applicable IC/EAL using the Matrix Evaluation Chart(s) identified in step 1 THEN Go To step 4. (Checklist 1, Step 3)	On Checklist 1, Step 3. The operator has identified HA4	
8.	Check the <u>highest</u> emergency classification level identified from either step 2b or 3: Classification ***** (Checklist 1, Step 4)	On Checklist 1, Step 4. The operator has selected ALERT as the Classification.	
9.	Check the <u>highest</u> emergency classification level identified from either step 2b or 3: *** Based on IC # (Checklist 1, Step 4)	On Checklist 1, Step 4. The operator has selected HA4 for the Based on IC#.	

NOTE: It is expected that the IC# be filled in on Checklist 1 (in the above step). Credit for this step will be given if the proper IC# is announced during the Crew Update announcing the classification to the crew.

10.	Remarks (Identify the specific EAL, as needed). (Checklist 1, Step 4)	On Checklist 1, Step 4. The operator has written A validated notification from NRC of an airliner attack threat less than 30 minutes away in the space provided.	
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NOTE: If follow-up questioning reveals that a classification was declared and based on another IC #, the classification should be evaluated for validity.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
11.	Declare the event by approving the Emergency Classification. (Checklist 1, Step 5)	On Checklist 1, Step 5. The operator has signed their name as the Emergency Director in the space provided.	
**12.	Fill in the Date in the space provided. (Checklist 1, Step 5)	On Checklist 1, Step 5. The operator has entered the current Date in the space provided.	
**13.	Fill in the Time in the space provided. (Checklist 1, Step 5)	On Checklist 1, Step 5. The operator has entered the current Time in the space provided. Time Critical Stop Time: _____. NOTE: For this step to be completed considered SAT, the time entered <u>must be within 15 minutes</u> of the time recorded on the Initial Conditions sheet provided to the operator.	

**1st
END
TIME:**_____

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. You are the On Shift Shift Manager.
2. You have just completed NMP-EP-110, Checklist 1 Steps 1 through 5.

INITIATING CUES:

Complete NMP-EP-110 Checklist 1 Step 6.

Raise your hand when you have completed Checklist 1, Step 6.

This JPM is **TIME CRITICAL**.

Current time is: _____

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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2nd
START
TIME: _____

PROMPT: **WHEN** the operator enquires about meteorological conditions, **GIVE** the operator the MIDAS Information Sheet if not given earlier when performing a Group JPM.

14.	Obtain Meteorological Data (not required prior to event declaration). (Checklist 1, Step 6)	The operator has obtained Meteorological Data (i.e. MIDAS Information Sheet).	
15.	Record the following: Wind Direction (from) *** ***** ***** (Checklist 1, Step 6)	On Checklist 1, Step 6. The operator has entered 130 in the space provided for Wind Direction (from) .	
16.	Record the following: *** Wind Speed ***** ***** (Checklist 1, Step 6)	On Checklist 1, Step 6. The operator has entered 5 in the space provided for Wind Speed .	
17.	Record the following: ***** ***** Stability Class ***** (Checklist 1, Step 6)	On Checklist 1, Step 6. The operator has entered D in the space provided for Stability Class .	

**** Indicates critical step)**

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
18.	Record the following: ***** ***** ***** Precipitation (Checklist 1, Step 6)	On Checklist 1, Step 6. The operator has entered 0 in the space provided for Precipitation .	

NOTE: The Operator may perform a “Crew Update” and announce what the Classification is and the IC# the classification is based on.

PROMPT: If the operator addresses performance of Checklist 1 Step 7
Initiate Checklist 2, Emergency Plan Initiation, **INFORM** the operator that another operator will Initiate Checklist 2.

2nd
END
TIME: _____

NOTE: The terminating cue shall be given to the operator when:

- With NO reasonable progress, the operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

INSTRUCTOR ANSWER KEY

Checklist 1 - Classification Determination

NOTE

Key Parameters should be allowed to stabilize to accurately represent plant conditions prior to classifying an event

Initial Actions

Completed by

1. **Determine** the appropriate Initiating Condition Matrix for classification of the event based on the current operating mode:

- ☒ HOT IC/EAL Matrix Evaluation Chart (**Go To Step 2**) to evaluate the Barriers)
- ☐ COLD IC/EAL Matrix Evaluation Chart (**Go To Step 3**)
- ☐ Both HOT & COLD IC/EAL Matrix Evaluation Chart apply (**Go To Step 2**)

Student

2. **Evaluate** the status of the fission product barrier using Figure 1, Fission Product Barrier Evaluation.

- a. **Select** the condition of each fission product barrier:

Student

	LOSS	POTENTIAL LOSS	INTACT
Fuel Cladding Integrity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reactor Coolant System	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Containment Integrity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. **Determine** the highest applicable fission product barrier Initiating Condition (IC):

Student

(select one) ☐ FG1 ☐ FS1 ☐ FA1 ☐ FU1 ☒ None

3. **Evaluate AND determine** the highest applicable IC/EAL using the Matrix Evaluation Chart(s) identified in step 1 **THEN Go To** step 4.

Hot IC# HA4 Unit 1&2 and/or Cold IC# _____ Unit _____ or ☐ None

Student

4. **Check** the highest emergency classification level identified from either step 2b or 3:

Student

<u>Classification</u>	<u>Based on IC#</u>	<u>Classification</u>	<u>Based on IC#</u>
<input type="checkbox"/> General		<input checked="" type="checkbox"/> Alert	<u>HA4</u>
<input type="checkbox"/> Site-Area		<input type="checkbox"/> NOUE	
		<input type="checkbox"/> None	N/A

Remarks (**Identify** the specific EAL, as needed): **A validated notification from NRC of an airliner attack threat less than 30 minutes away.**

5. **Declare** the event by approving the Emergency Classification.

Student Date: *****/*****/**** Time: *****
Emergency Director

Student

6. **Obtain** Meteorological Data (not required prior to event declaration):

Wind Direction (from) 130 Wind Speed 5 Stability Class D Precipitation 0

Student

7. **Initiate Attachment 2, Checklist 2 - Emergency Plan Initiation.**

**** Indicates critical step)**

MIDAS INFORMATION

METEOROLOGICAL

10M WIND SPD 1Y33-R601	100M WIND SPD 1Y33-R603	10M WIND DIR 1Y33-R601	100M WIND DIR 1Y33-R603
3.0	5.0	100	130

AMBIENT TEMP (F) 10M 54	DELTA T 60-10 -1.6	DELTA T 100-10 -2.9	RAINFALL 15 MIN. AVG .000
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RADIOLOGICAL

MAIN STACK		U1 RX. BLDG. VENT	U2 RX. BLDG. VENT
NORMAL RANGE	KAMAN	NORMAL RANGE	KAMAN
1D11-K600A	1D11-R631	1D11-K619A	2D11-R631
2.00E 01		5.4E 01	4.00E 01
1D11-K600B		1D11-K619B	2D11-K636B
2.00E 01			4.00E 01
STABILITY CLASS			
D			